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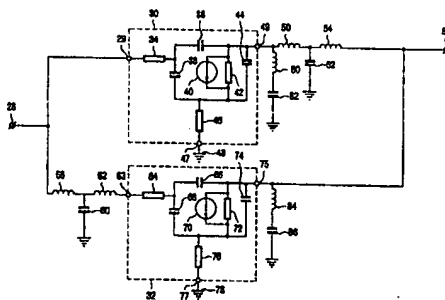
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AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES,
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[Continued on next page]

(54) Title: HIGH POWER DOHERTY AMPLIFIER



(57) Abstract: A high power Doherty amplifier circuit having at least one input terminal and at least one output terminal comprising at least one carrier transistor (30) forming a main amplifier stage; at least one peak transistor (32) forming a peak amplifier stage; a first input line (27) connecting the input terminal (28) to an input (29) of the carrier transistor (30); a second input line (31) connecting the input terminal (28) to an input (63) of the peak transistor (32); a first output line (33) connecting the output terminal (56) to an output (49) of the carrier transistor (30); and a second output line (35) connecting the output terminal (56) to an output (75) of the peak transistor (32). A high power Doherty amplifier circuit package comprising a support structure (104) supporting circuit elements of the Doherty amplifier circuit; at least one input terminal (102) and at least one output terminal (96) both terminals being supported on the support structure (104); at least one carrier transistor (92) forming a main amplifier stage and at least one peak transistor (98) forming a peak amplifier stage both transistors being supported on the support structure (104); a first input network (106) connecting the input terminal (102) to an input of the carrier transistor (92); a second input network (100, 114, 116) connecting the input terminal (102) to an input of the peak transistor (98); a first output network (94, 108, 110) connecting the output terminal (96) to an output of the carrier transistor (92); and a second output network (112) connecting the output terminal (96) to an output of the peak transistor (98), and wherein the input and output networks are artificial transmission lines comprising serial circuits and / or parallel circuits of at least one capacitance and / or at least one inductance.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H03F1/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 329 877 B1 (BOWEN JOHN WAYNE ET AL) 11 December 2001 (2001-12-11) cited in the application	1
A	column 2, line 46 -column 4, line 65; figures 2,3	12,13
X	YANG Y ET AL: "EXPERIMENTAL INVESTIGATION ON EFFICIENCY AND LINEARITY OF MICROWAVE DOHERTY AMPLIFIER" 2001 IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST.(IMS 2001). PHOENIX, AZ, MAY 20 - 25, 2001, IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM, NEW YORK, NY: IEEE, US, vol. 2 OF 3, 20 May 2001 (2001-05-20), pages 1367-1370, XP001067479 ISBN: 0-7803-6538-0 page 1368; figure 2	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 6 359 513 B1 (KUO TIMOTHY C ET AL) 19 March 2002 (2002-03-19) cited in the application column 2, line 47 -column 3, line 48; figures 2,5</p>	<p>1,5-10, 12-15</p>

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6329877	B1	11-12-2001	NONE
US 6359513	B1	19-03-2002	WO 02061940 A1 08-08-2002